

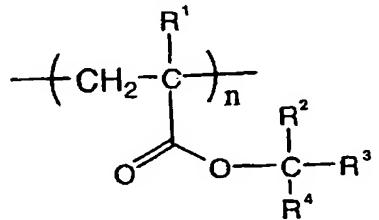
WHAT IS CLAIMED IS:

1. A method for producing hydroxyl group-containing polymer particles comprising:

causing cross-linked polymer particles comprising a (meth)acrylate polymer to react in the presence of a metal-containing ester-exchange reaction catalyst with at least one compound selected from the group consisting of a compound including at least two hydroxyl groups and a compound including at least one primary amino group and at least one hydroxyl group,

the cross-linked polymer particles comprising the (meth)acrylate polymer represented by the following formula (I):

Formula (I)



wherein R¹ represents a hydrogen atom or a methyl group; R² to R⁴ may be the same or different from each other, and each independently represents a substituted or non-substituted alkyl group or a substituted or non-substituted aryl group, any one of which has 1 to 12 carbon atoms; and n represents an integer of 1 or more.

2. A method according to claim 1, wherein in the reaction, a non-reactive solvent capable of swelling the cross-linked polymer particles comprising the (meth)acrylate polymer represented by the formula (I) is used.

3. A method according to claim 1, wherein at least one of R² to R⁴ in the formula (I) each independently represents an alkyl group selected from the group consisting of substituted or non-substituted methyl, ethyl, propyl and benzyl groups.

4. A method according to claim 1, wherein at least one of R² to R⁴ in the formula (I) each independently represents an aryl group selected from the group consisting of substituted or non-substituted phenyl, naphthyl, tolyl and p-n-octyloxyphenyl groups.

5. A method according to claim 1, wherein the (meth)acrylate polymer represented by the formula (I) is a t-butyl(meth)acrylate polymer, and the metal-containing ester-exchange reaction catalyst is titanium tetraalkoxide.

6. A method according to claim 2, wherein the (meth)acrylate polymer represented by the formula (I) is a

t-butyl(meth)acrylate polymer, and the metal-containing ester-exchange reaction catalyst is titanium tetraalkoxide.

7. A method according to claim 1, wherein, in the reaction, the cross-linked polymer particles comprising the (meth)acrylate polymer are caused to react with a compound including at least two hydroxyl groups, and the compound including at least two hydroxyl groups is an alcohol compound.

8. A method according to claim 1, wherein, in the reaction, the cross-linked polymer particles comprising the (meth)acrylate polymer are caused to react with a compound including at least one primary amino group and at least one hydroxyl group, and the compound including at least one primary amino group and at least one hydroxyl group is an aminoalcohol compound.

9. A method according to claim 1, wherein the metal-containing ester-exchange reaction catalyst is titanium tetraalkoxide.